

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program

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December 18, 2008

Contract No. 04-0120F4
04-SF-80-13.2 / 13.9
Self-Anchored Suspension Bridge
Letter No. 05.03.08-000009

Michael Flowers
Project Executive
American Bridge/Fluor, A JV
375 Burma Road
Oakland, CA 94607

Dear Michael Flowers,

Type 2 U-Rib Internal Diaphragms

In order to prevent fatigue inducing bending moments, the continuity and diaphragm plates in the type-2 U-ribs must be aligned within the 10% thickness of the thinner plate pursuant to Section 10-1.59 of the Special Provisions. Of the 72 type-2 U-rib deck panels required for lifts 1 and 2, most of the 65 deck panels produced to date don't have appropriate markings on the steel and cannot be checked to confirm that the internal diaphragm continuity plates are positioned and aligned correctly.

ABF is required by contract to:

- Accurately position the internal diaphragms in each individual U-rib
- Position the U-ribs on a particular deck panel so that all internal diaphragms align
- Align adjacent deck panels so that all internal diaphragms lineup from panel to panel
- Accurately position the cross-girder diaphragm plates over the internal continuity plates

Based on earlier discussions, the Department was informed that ABF was developing a NDT procedure that could be used to precisely determine the locations of the continuity plates not previously marked. Although the accuracy of the procedure has not yet been verified or submitted to the Department for review, the dimensional control plan submitted to the Department on December 4, 2008, ABF-SUB-000234R08, "Dimension Control Plan: OBG & Crossbeams," on page 5, note 4, states, *"For deck panels not having continuity plate marked at the outside of the closed rib, use UT to find the appropriate locations (+/- 3mm) of both sides of the continuity plates, and then take the average as the center line."* Although the +/- 3mm is not within contract tolerance of 1.4mm, this note has been the only information provided to the Department regarding this issue to date.

In order to resolve the continuity/diaphragm plate alignment issue in panels not adequately marked, ABF must demonstrate that it can precisely locate the position of the continuity plates, and ensure there is continuity/diaphragm plate alignment within contract tolerance. The Department needs assurance that the internal diaphragms are correctly positioned in previously fabricated panels, and that the necessary corrective actions have been taken to adequately mark future type-2 panels.

Without confirmation of correct diaphragm alignment, these panels cannot be accepted and must be replaced.

The Department looks forward to working with ABF to resolve this issue as soon as possible.

Sincerely,

<<< ORIGINAL SIGNED >>>

GARY PURSELL

Resident Engineer

cc: R. Morrow, P. Siegenthaler, J. Tom, D. Coe, K. Devonport, S. Ku, B. Boal
file: 05.03.08